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NON-EUCLIDEAN GEOMETRY: HISTORICAL AND EXPOSITORY.

By GEORGE BRUCE HALSTED, A. M., (Princeton); Ph. D., (Johns Hopkins); Member of the London Mathematical Society; and Professor of Mathematics in the University of Texas, Austin, Texas.

[Continued from June-July Number.]

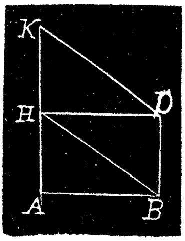
Scholion I. And this it is, that I said before in Cor. II. after XXV of this; obviously that no place would remain over for the hypothesis of acute angle, or Euclidean Geometry would be most exactly established, if any two straights existing in the same plane, as suppose AX, BX, which the straight AB meeting (the point B being assumed at a distance from the point A as great as you choose) makes with them toward the same parts of the points X two angles less than two right angles, if (I say) nowhere at another place (this standing) they can admit a common perpendicular.

For then these two AX, BX mutually approach each other ever more, indeed either within a certain determinate limit, as in XXV of this, or without any certain limit, and therefore even to meeting, anyhow after infinite production, as in this XXVII.

But it holds that in either of the aforesaid cases the destruction of the hypothesis of acute angle has now been shown. Quod intendebatur.

Scholion II. And again this it is, that I promised at the end of Scholium IV after XXI of this, as from the very terms clearly shines out.

Scholion III. Moreover I could wish here to be observed the difference between this proposition and the preceding XVII. For there (recall Fig. 15) has been shown the destruction of the hypothesis of acute angle, if (the straight AB being as small as you choose) every BD erected at whatever acute angle, must at length meet in some point K the perpendicular AH produced.



But here (viceversâ) in fact is permitted the designation of however most small an acute angle at the point A, while still the sect AB to which is to be erected the indefinite perpendicular BX, may be taken of any length whatever.

[To be Continued.]